

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

### REMARKS

Reconsideration of the subject application is respectfully requested in view of the foregoing amendments and remarks below.

Claims 11-18, 35-51, 59-61, 64-67, 72 and 75-77 are presently pending. Only claim 59 has been amended to correct a minor typographical error.

The Examiner is kindly thanked for the courtesy of the personal interview conducted on June 27, 2003.

### Objection to the Drawings

The Examiner has objected to the drawings under 37 C.F.R. §1.83(a) for allegedly failing to show every feature of the invention specified in the claims. The Examiner specifically notes the claims recite the following features that are allegedly not shown in the drawings: (1) the specific type of dryer, e.g. "direct concurrent flow dryers, horizontal single, double and triple pass indirect dryers, and vertical counter flow rotating disk indirect dryers" (e.g., claims 41-43); (2) reacting scavenged exhaust gases with a reactive material (e.g., claims 15-18, 47 and 48); and (3) mixing and pulverizing a dried mixture of organic waste and coal combustion product (e.g., claims 75-77).

35 U.S.C. §113 specifically states, in relevant part, that "applicant shall furnish a drawing *where necessary for the understanding of the subject matter to be patented.*" (Emphasis added.) It is respectfully submitted that one of ordinary skill in the art would not fail to understand this claimed subject matter without a drawing. The specification at pp. 9-10 describes non-limiting examples of conventional dryers that may be used to dry the mixture of organic waste and mineral by-product. The particular type of dryer employed is not critical. A dryer is depicted in Fig. 1 by reference numeral 4. Therefore, a drawing is not necessary to understand this claimed feature. Similarly, p. 11 of the specification discloses reacting exhaust gases with solid phase reactive materials such as  $\text{Ca}(\text{OH})_2$  to reduce pollutant gases in the exhaust gas. The person having ordinary skill in the art would understand and readily envision appropriate equipment suitable for contacting a gaseous phase with a solid phase. Hence, a drawing is not necessary to understand this claimed feature. Likewise, the specification at p. 14 disclosing mixing coal with a dried mixture of

organic waste and coal combustion by-product then pulverizing. One of ordinary skill in the art would readily understand conventional equipment used for mixing a pulverizing (i.e. reducing particle size). A mixer is depicted by reference numeral 3 in Fig. 1 and reference numeral 15 in Fig. 2. Again, a drawing is not necessary to understand this claimed feature.

Because a drawing is not necessary to understand the features pointed out by the Examiner, reconsideration and withdrawal of the objection to the drawings is respectfully requested.

**Rejection of claims 11-15, 35-43, 45 and 46 under 35 U.S.C. §103(a) over Wurtz (U.S. 4,997,572) in view of Zauderer (U.S. 6,048,510)**

Claims 11-15, 35-43, 45 and 46 have been rejected under 35 U.S.C. §103(a) as allegedly be rendered obvious by Wurtz (U.S. 4,997,572) in view of Zauderer (U.S. 6,048,510). Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Independent claim 11 requires liberation of ammonia by drying a mixture of organic waste/coal combustion by-product/alkaline additive and independent claim 35 requires liberation of ammonia by drying a mixture of organic waste and a coal combustion by-product. Each of these claims further requires introducing the liberated ammonia into a coal burner of a coal burning power plant. While Wurtz teaches that ammonia is liberated from the process disclosed therein, Wurtz does not provide any teaching or suggestion of what to do with that liberated ammonia. It is simply vented to the air. Zauderer teaches that ammonia may be added to the exhaust gas streams from the combustion of fossil fuels, for the purpose of reducing NOx. Zauderer does not teach or suggest that the ammonia can ammonia liberated from organic waste treated with a coal combustion by-product or both a coal combustion by-product and an alkaline material.

Absent the instant specification, there is absolutely no suggestion in either Wurtz or Zauderer that would motivate one of ordinary skill in the art to use the specific source of ammonia, as recited in independent claims 11 and 35 (from which all of the other rejected claims depend either directly or indirectly), to reduce NOx in a coal burner.

Therefore, the combination of Wurtz in view of Zauderer does not render the claimed invention *prima facie* obvious. Therefore, the rejection is improper and withdrawal thereof is respectfully requested.

**Rejection of claims 49-51, 59-61 64-66 and 72 under 35 U.S.C. §103(a) over Wurtz (U.S. 4,997,572) in view of Baer et al. (U.S. 5,447,703)**

Claims 49-51, 59-61, 64-66 and 72 have been rejected under 35 U.S.C. §103(a) as allegedly be rendered obvious by Wurtz (U.S. 4,997,572) in view of Baer et al. (U.S. 5,447,703). Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Claims 49-51 depend from independent claim 35, which requires introducing liberated ammonia into the coal burner of a coal burning power plant. The combination of Wurtz and Baer et al. does not teach or suggest this step. Similarly, claims 64-66 and 72 require an ammonia feed comprising ammonia liberated from the organic waste upon drying a mixture of organic waste and a coal combustion by-product. The combination of Wurtz and Baer et al. is similarly deficient in respect to these claims.

Claims 59-61 require forming an "organic waste-coal combustion by-product mixture" drying that mixture, combining that mixture with coal and feeding the resultant mixture to a coal burner of a coal burning power plant. Wurtz teaches merely mixing a coal combustion by-product with organic waste. There is no mention in Wurtz that the resultant product may be further mixed with coal, let alone fed to a coal burner of a coal burning power plant. Baer et al. merely teaches burning, in the presence of marble, coal and possibly other waste products such as municipal waste, etc., to reduce the amount of noxious gases generated. Baer et al. does not teach or suggest combining forming a separate product comprising the combination of coal and a dried organic waste/coal combustion by-product. It is respectfully submitted that there is no motivation provided by the cited references to utilize the product of Wurtz in combination with coal as disclosed in Baer et al. Wurtz discloses that the product formed therein is useful as soil conditioners or fertilizer supplements. To burn the product of Wurtz with coal by the process of Baer et al. would certainly defeat the purpose of using the Wurtz product in the disclosed manner.

Therefore, the combination of Wurtz in view of Baer et al. does not render the claimed invention *prima facie* obvious. Therefore, the rejection is improper and withdrawal thereof is respectfully requested.

**Rejection of claims 76 and 77 under 35 U.S.C. §103(a) over Baer et al. in view of Rivers et al. (U.S. 4,532,873)**

Claims 76 and 77 have been rejected under 35 U.S.C. §103(a) as allegedly be rendered obvious by Baer et al. (U.S. 5,447,703) in view of Rivers et al. (U.S. 4,532,873). Reconsideration and withdrawal of this ground of rejection is respectfully requested.

As discussed above, Baer et al. merely teaches burning, in the presence of marble, coal and possibly other waste products such as municipal waste, etc., to reduce the amount of noxious gases generated. Baer et al. does not teach or suggest combining forming a separate product comprising the combination of coal and a dried organic waste/coal combustion by-product. Rivers et al. is directed to burning of hog fuel (i.e., wood waste generated by wood processing facilities, col. 1, lns. 13-15 of Rivers et al.). Indeed, Rivers et al. teaches avoiding the use of fossil fuels (such as coal). See, e.g., col. 3, lns. 48-52 (“[t]he present invention converts the entire hog fuel pile or any other coarse or poorly graded biomass or even peat into a fuel that burns in air suspension in a boiler *without the necessity for supplemental fossil fuels*...”). (Emphasis added.) Rivers simply does not suggest the use of coal. To the contrary, Rivers et al. teaches away from the use of coal.

Therefore, the combination of Baer et al. and Rivers et al. does not render the claimed invention *prima facie* obvious. Therefore, the rejection is improper and withdrawal thereof is respectfully requested.

**CONCLUSION**

It is respectfully submitted that the subject application is now in condition for allowance, which action is earnestly solicited.

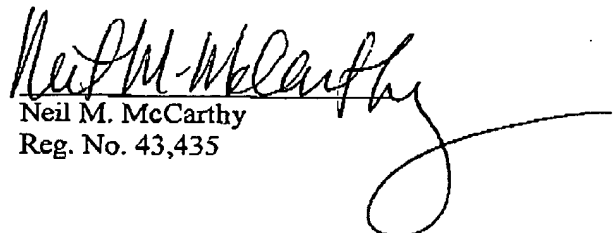
The Examiner is invited, upon consideration of the foregoing response, to contact Applicant's representative to discuss any issue that would expedite allowance of the subject application.

The Commissioner is authorized to charge any fees required under 37 C.F.R. §1.16 and/or §1.17 in connection with this filing, or to credit any overpayments, to Deposit Account 11-0600.

Respectfully submitted,

KENYON & KENYON

Date: October 20, 2003

By:   
Neil M. McCarthy  
Reg. No. 43,435

KENYON & KENYON  
1500 K Street, NW - Suite 700  
Washington, DC 20005  
telephone: 202-220-4200  
facsimile: 202-220-4201  
DC01/472568v1

**RECEIVED**  
**CENTRAL FAX CENTER**

OCT 21 2003

**OFFICIAL**